Abstracts

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Background Health research builds evidence to positively impact populations and health systems. However, at the conclusion of individual research projects, the findings may not always indicate a clear direction for pursuing positive impact. Type 2 Diabetes Mellitus (T2DM) is a lifestyle-related chronic disease, with the 2019 global prevalence estimated at 9.3% (463 million people).

Objectives Using the Australia 3D study as an example, this work discusses ways forward for researchers when study findings provide multiple options for population and health system impact, rather than one clear direction.

Methods The 3D longitudinal, case-series study of 225 adult Australians newly diagnosed with T2DM, focused on answering the question: How does Diet Change after Diagnosis with T2DM? All results are published separately, and this work synthesizes findings to plan next steps in pursuing meaningful impact.

Results Overall, the 3D study found that very few people newly diagnosed with T2DM make meaningful, sustained improvements to diet quality. However, no sociodemographic, health, or behavioural factors were identified as being consistently influential in supporting success in dietary changes. These results provide several options for next steps to support those newly diagnosed with T2DM. To have a tangible health system and population impact, results need to be considered within the wider context (i.e., sociodemographic, and cultural factors), and thus an implementation study is suggested. The next steps for 3D should also be collaborative, such as using an Integrated Knowledge Translation (IKT) approach, which involves knowledge users (i.e., those most impacted, such as patients, community partners, and health system stakeholders). In IKT, researchers and knowledge users work collaboratively to develop priorities and research questions, interpret findings, and put results into practice.

Conclusion Determining the next steps in any research program can be challenging. The 3D study began with lived-experience input and has advanced the evidence regarding diet quality for individuals recently diagnosed with T2DM. Next steps will be driven by a variety of factors, including funding and resources, researcher capacity, and community engagement.

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Background While many aspects of the food system, such as availability, accessibility, price, and affordability, have been explored and evaluated, there is a limited understanding of the relationship between these factors and people's food acquisition and consumption. Therefore, the term 'food literacy' emerged as the everyday skills, behaviour, and knowledge needed by individuals to navigate the food environment and meet their nutrition and health needs. The term has gained momentum globally, however, a lack of clarity around its definition has resulted in inconsistencies in use of the term.

Objectives To conduct a systematic scoping review to describe the use, reach, application, and definitions of the term 'food literacy' over time.

Methods Literature search was conducted using the PRISMA-ScR guidelines in seven research databases without any date limitations up to 31 December, 2019, searching simply for the use of the term 'food literacy'.

Results 549 studies were included. The term 'food literacy' was used once in 243 articles (44%) and mentioned by researchers working in 41 countries. Original research was the most common article type (n=429, 78%). Food literacy was published across 72 In Cites disciplines, with 456 (83%) articles from the last 5 years. In articles about food literacy (n=82, 15%), review articles were twice as prevalent compared to the total number of articles (n=10, 12% vs. n=32, 6%). 51 different definitions of food literacy were cited.

Conclusion 'Food Literacy' has been used frequently and broadly across differing article types and disciplines in academic literature internationally. However, agreement on a standardized definition of food literacy endorsed by a peak international agency is needed in order to progress the field. Additionally, the Food and Agriculture Organization of the United Nations (FAO) has identified consumer behaviours as a driver of the food system; however, there have been no measures reported for assessing food acquisition, preparation, meal practices and storage: all key components of food literacy. Therefore, the development of measures to assess components of the food system also relies on progressing international consensus and indicators.

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Background With the range of nutrition information online, assessing the resources that public access may improve the reliability and quality of the nutritional related COVID-19 information. The quality and reliability of the nutritional information in COVID-19 available on video sharing websites such as YouTube is unknown.

Objectives To evaluate whether the popularity of the videos correlated with the reliability and quality as determined by using the recognized quality scoring systems.

Methods YouTube was searched using the terms 'nutrition and COVID-19' in Turkish on February 1st, 2021. Videos were subsequently filtered according to relevancy, and first 280

videos were analyzed. Videos in other languages, duplicate videos, and live videos were excluded. A total of 218 videos were reviewed. Video demographics including number of views, likes, and dislikes were recorded. The upload source of each video was classified as news channel, health professionals, health centers, TV channels, government organisations, educational organisations and independent individual channels based on the information given at 'about' section of their YouTube profile. The transparency, utility, reliability and accuracy of video content was assessed using the Journal of the American Medical Association benchmark criteria (JAMA score). Quality of the videos were assessed with Global Quality Score (GQS).
Results According to the video source, 30.7% of the videos were shared by health professionals including doctors, dietitians, and nurses, whereas 18.7% of them shared by independent users. Educational organisations only shared 5% of the videos. Videos shared by health centers had the highest JAMA score (2.2 ± 0.8) followed by government organisations (2.1 ± 0.7). The independent users and TV channels' videos had the lowest JAMA score (1.7 ± 0.7). GQS was the highest for government organisations' videos (3.5 ± 01.1) whereas it was lowest for TV channels' videos (2.8 ± 01.1). There was a significant positive correlation between JAMA score and GQS of the videos (r=0.201, p=0.05). According to the assessment of the relationship between length, number of views, likes, dislikes, view and like ratio, there was a correlation between the length of the video, like ratio and GQS (r=0.193, p=0.004 and r=0.140, p=0.039 respectively). There were not any significant associations between quantitative variables and JAMA score.
Conclusion Health professionals, educational and government organisations need to more engage in the spread of nutrition-related COVID-19 information to internet platforms such as YouTube. This will be an effective and immediately implementable public health strategy to effectively spread the right information.

| 4 | CLINICAL EVIDENCE BASE SUGGESTING THE IMPROVEMENT IN HEALTH OUTCOMES WITH VITAMIN D3 SUPPLEMENTATION IN PEOPLE AGED ≥ 50 YEARS IN IRELAND AND THE UK |

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Background Vitamin D deficiency, defined as a circulating 25-hydroxyvitamin D [25(OH)D] concentration <25nmol/L, is a global health issue associated with fractures, all-cause mortality and cancer mortality. Optimizing vitamin D status through supplementation, therefore may improve health-related quality of life, whilst simultaneously reducing healthcare costs associated with these conditions.
Objectives This clinical review investigates the effects of vitamin D3 supplementation on these outcomes in adults.
Methods Literature review was undertaken between 1st February – 31st March, 2021. Search terms included 'vitamin D supplementation', 'vitamin D status' and 'risk of fracture', 'cancer mortality' and 'all-cause mortality'.
Results A total of 11 systematic reviews and meta-analyses in populations aged ≥50 years of age were reviewed. Six reviews demonstrated a significant reduction in the risk of fracture, cancer mortality, and all-cause mortality following vitamin D supplementation (table 1). Of the five reviews showing no effect of supplementation, all were conducted in fracture risk populations. Three meta-analyses included studies with participants with an inadequate baseline vitamin D status [25(OH)D < 50nmol/L]; of these, one review, which investigated fracture risk, showed no benefit of supplementation. Potential beneficial effects of supplementation may have been masked in

Abstract 4 Table 1 Reviews that reported beneficial effects of vitamin D supplementation on fracture risk, cancer mortality, and all-cause mortality

Author	Outcome	Vitamin D Dose	Vitamin D status (number of studies/ participants)	Age (years)	Follow-up (years)	Relative risk (CI 95%)	P-Value	Key findings
Weaver et al. 2016	Fracture risk	400-800IU/day 500-1200mg/day Calcium	Not reported	≥65	1-7	0.85 (0.73-0.98)	0.06	15% reduction in risk of total fracture.
Tang et al. 2007	Fracture risk	800IU/day and 1200mg calcium	†Low (10144) Normal (39167)	50-85	3.5*	0.88 (0.83-0.95)	0.004	Calcium with vitamin D associated with a 12% reduction in all fractures. Greater risk reduction with low serum 25(OH)D concentration compared to normal.
Keum et al. 2019**	Cancer mortality	400 -2000IU/day 20,000IU/week 500,000IU/Year	38-83 nmol/L	58-77	3-10	0.87 (0.79-0.96)	0.005	13% reduction in cancer mortality and 7% reduction in cancer incidence over 3–10- year period.
Han et al. 2019	Cancer mortality	400IU/day- 500,000IU/year	Not reported	44-75	4.3-28	0.81 (0.71-0.93)	0.012	Dose-response analysis suggests 7% reduction in cancer risk and 2% reduction in cancer mortality with 20nmol/L increment of 25(OH)D.
Bjelakovic et al. 2014**	All-cause mortality	300IU/day- 500,000IU/year	<26ng/mL (26)	18-107	0.008-7	0.94 (0.91-0.98)	0.002	6% decrease in mortality.
Rejnmark et al. 2012	All-cause mortality	300IU/day- 500,000IU/year	Not reported	53-98	3	0.91 (0.84–0.98)	0.01	7% decrease in mortality.